## Introduction: 2008 State of the Science Lectures

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From its inception and through to the present day, progress in all areas of behavior analysis has been fueled by advances in basic science. With the successful application of behavioral principles to an ever-widening array of practical problems, however, the science behind the application is sometimes overlooked. To underscore the vital importance of science to our discipline, a special track of the 2008 annual convention of the Association for Behavior Analysis International (ABAI) was created to highlight and amplify the good science that has and continues to infuse the various branches of behavior analysis. The keynote event in this track was a session that brought together luminaries in the field to give state of the science lectures presentations that traced the development of key ideas and concepts in a specific area of research and theory. Each of the speakers graciously agreed to prepare a manuscript based on his ABAI lecture. The result is the following series of papers.

The authors have each made pioneering and enduring contributions to our science; at the same time, each remains active and well positioned to comment on key developments for the future. Edmund Fantino's paper traces the concept of conditioned reinforcement from its early days as a mediating or bridging stimulus through to more contemporary accounts based on temporal context

and reinforcement value. As Fantino's stimulating paper shows, conditioned reinforcement is a ubiquitous phenomenon and remains a fundamental concept in the analysis of behavior. Tony Nevin's paper addresses the problem of privacy, a much-discussed but poorly understood phenomenon, in light of contemporary research and theory in conditional stimulus control. Bringing sophisticated quantitative techniques to bear on the problem, Nevin illustrates how private events can be brought within reach of an experimental analysis. Murray Sidman's paper reflects on the broad topic of stimulus control, identifying conceptual threads running through the literature. Sidman's astute observations regarding behavioral units and the fundamental importance of class and relational concepts show how behavior-analytic principles apply to an ever-widening array of complex phenomena. Travis Thompson's paper outlines a behavioral account of self-awareness that combines a sophisticated analysis of verbal behavior with contemporary work in behavioral neuroscience. The paper touches on an impressive range of topics, from brain imaging to skills deficits in children with autism, and serves to illustrate some ways in which behavior analysis may contribute to cutting-edge interdisciplinary

Together, the papers reflect well on the current state of our science, providing interesting perspectives on the historical roots, as well as the future directions, of important scientific problems.

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